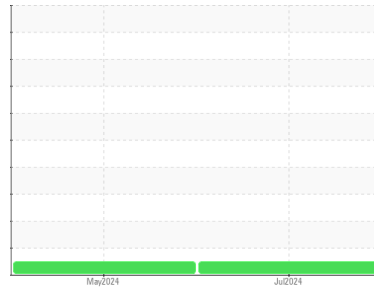




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**PETERBILT Truck 20**  
 Component  
**Diesel Engine**  
 Fluid  
 **DIESEL ENGINE OIL SAE 40 (--- GAL)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

#### Wear

All component wear rates are normal.

#### Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

#### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>SBP0007731</b>	SBP0007729	---
Sample Date	Client Info			<b>11 Jul 2024</b>	22 May 2024	---
Machine Age	mls	Client Info		<b>444000</b>	380000	---
Oil Age	mls	Client Info		<b>15000</b>	16000	---
Oil Changed	Client Info			<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<b>&lt;1.0</b>	<1.0	---
Water	WC Method	>0.2		<b>NEG</b>	NEG	---
Glycol	WC Method			<b>NEG</b>	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	<b>39</b>	58	---
Chromium	ppm	ASTM D5185m	>4	<b>1</b>	1	---
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	---
Aluminum	ppm	ASTM D5185m	>25	<b>3</b>	4	---
Lead	ppm	ASTM D5185m	>45	<b>4</b>	2	---
Copper	ppm	ASTM D5185m	>85	<b>1</b>	2	---
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	---
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	<b>1</b>	14	---
Barium	ppm	ASTM D5185m	10	<b>&lt;1</b>	0	---
Molybdenum	ppm	ASTM D5185m	100	<b>69</b>	78	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m	450	<b>1060</b>	1087	---
Calcium	ppm	ASTM D5185m	3000	<b>1209</b>	1417	---
Phosphorus	ppm	ASTM D5185m	1150	<b>1145</b>	1183	---
Zinc	ppm	ASTM D5185m	1350	<b>1376</b>	1427	---
Sulfur	ppm	ASTM D5185m	4250	<b>3097</b>	3903	---

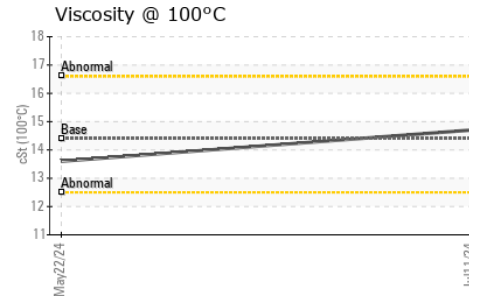
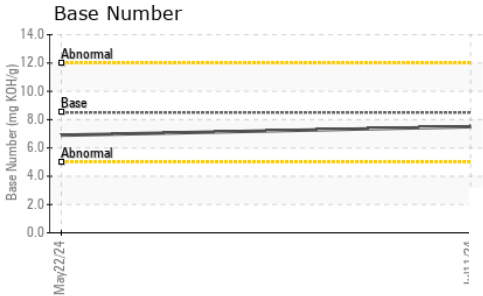
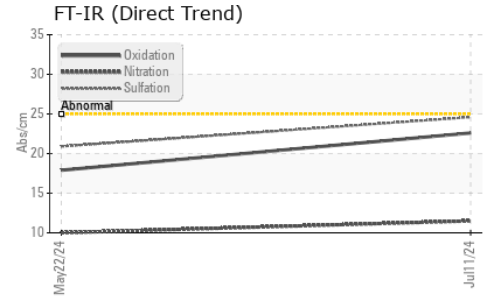
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	<b>5</b>	5	---
Sodium	ppm	ASTM D5185m	>216	<b>2</b>	4	---
Potassium	ppm	ASTM D5185m	>20	<b>10</b>	7	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.8</b>	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.5</b>	10.0	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.6</b>	20.9	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>22.6</b>	17.9	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>7.5</b>	6.9	---



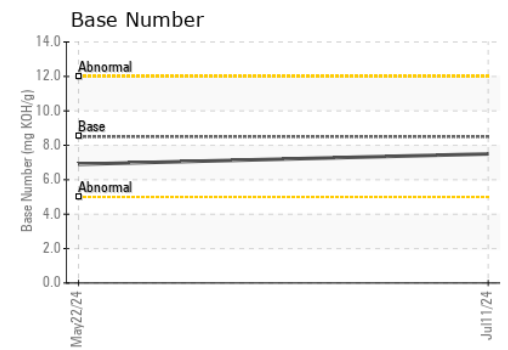
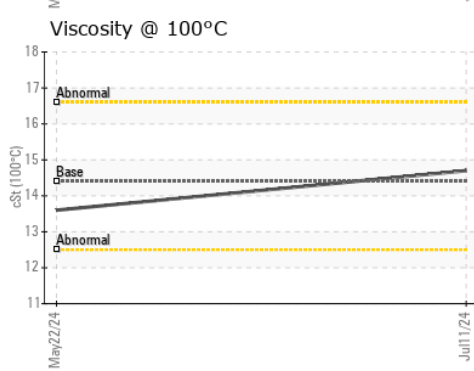
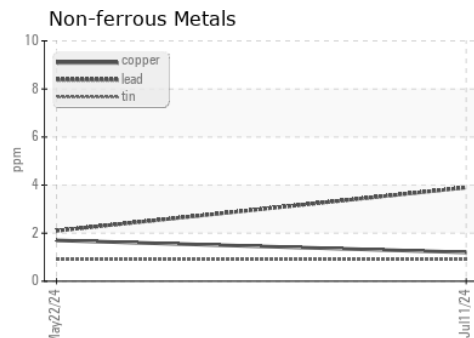
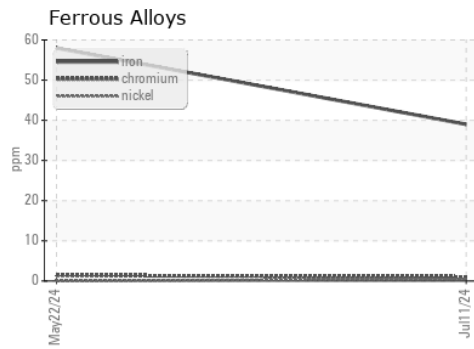
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	14.4	<b>14.7</b>	13.6	---

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : SBP0007731      **Received** : 17 Jul 2024  
**Lab Number** : **06238984**      **Tested** : 18 Jul 2024  
**Unique Number** : 11127818      **Diagnosed** : 18 Jul 2024 - Wes Davis  
**Test Package** : FLEET

**BIG ROCK ENTERPRISES LLC**  
 11884 LEWISTON LN  
 GRETNA, NE  
 US 68028  
 Contact: COREY RASMUSSEN  
 bigrockenterprises@outlook.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)